




**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX LABORATORY  
1337 S. 46TH STREET  
BLDG. 201  
RICHMOND, CA 94804-4698**

**MAR 28 2002**

**MEMORANDUM**

**SUBJECT:** Case R02S15, SDG 02058A  
Results for Perchlorate Analysis

**FROM:**   
Brenda Bettencourt, Director  
EPA Region 9 Laboratory (PMD-2)

**TO:** Kevin Mayer, Remedial Project Manager  
Northern California Cleanup Section (SFD-7-2)

Attached are the report narrative and results spreadsheet from analysis of samples from the Colorado River Perchlorate Study. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

<b>SITE/PROJECT:</b>	Colorado River Perchlorate Study
<b>CASE:</b>	R02S15
<b>LABORATORY:</b>	U. S. EPA Region 9 Laboratory
<b>SAMPLE DELIVERY GROUP(s):</b>	02058A
<b>ANALYSIS:</b>	Perchlorate (EPA method 314.0)

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Vance Fong at the Region 9 Quality Assurance Office.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

**ATTACHMENT:** Analytical Report

**USEPA REGION 9 LABORATORY**  
**REPORT NARRATIVE**

**CASE NUMBER:** R02S15  
**SAMPLE DELIVERY GROUP:** 02058A  
**PROGRAM:** SUPERFUND  
**DOCUMENT CONTROL #:** B0101057-1281  
**DATE:** 03/26/02  
**ANALYSIS:** Perchlorate  
**SAMPLE NUMBERS:**

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
LV Wash @N. Shore Rd	AB34409
LV Wash nr Henderson, NV	AB34431
LV Wash nr Boulder City, NV	AB34432
Colorado Rv blw Hoover Dam	AB34433

**GENERAL COMMENTS**

Four water samples were received from the Colorado River Study Superfund project on 02/27/02 and 02/28/02.

The requested analysis was perchlorate by Region 9 Laboratory SOP #531 (EPA Method 314.0). All perchlorate analyses were performed within the suggested 28-day holding time.

**SAMPLE RECEIPT AND PRESERVATION**

No custody seals were present on all samples. Samples AB34431, AB34432, and AB34433 were received at the laboratory at room temperature. It is believed that this discrepancy will have no significant effect on the perchlorate results.

No other shipping or preservation issues were encountered.

**QC COMMENTS**

No analytes were detected in the LRBs associated with this SDG.

The perchlorate result for QC sample AB34409 was greater than 4 times the added 5ug/L and 25ug/L LFM spikes. No LFM or LFM duplicate recoveries were analyzed or calculated for perchlorate.

The RPD between the sample and duplicate for perchlorate was less than or equal to the 20% QC limit.

The perchlorate LFB recovery was within the 90-110% QC limits.

Questions concerning the data can be answered by Osell Salvador at (510) 412-2358.

## **GLOSSARY**

### **Laboratory Reagent Blanks (LRB)**

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

### **Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis**

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

### **Laboratory Fortified Blank (LFB) Analysis**

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

**EPA REGION 9 LABORATORY-RICHMOND, CA  
SUMMARY OF PRELIMINARY RESULTS**

**Case Number:** R02S15  
**Site:** Colorado River Study  
**SDG:** 02058A  
**Date:** 03/27/02

**Analysis:** Perchlorate  
**Matrix:** Water

Sample No.	N/A			09417000			09418000			09421500			Reagent			Filtered		
Sample I.D.	LV Wash @ N. Shore Rd.			Las Vegas Wash Nr Henderson			Las Vegas Wash Nr Boulder City			Colorado River Blw Hoover			Blank			Reagent Blank		
Lab Sample I.D.	AB34409			AB34431			AB34432			AB34433			N/A			N/A		
Date of Collection	02/26/02			02/25/02			02/26/02			02/22/02			N/A			N/A		
Units	ug/L			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate	530			58			520			8			2	U		2	U	

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample quantitation limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Sample No.	Quantitation
Sample I.D.	Limit
Lab Sample I.D.	N/A
Date of Collection	N/A
Units	ug/L
Analyte	Result
Perchlorate	2

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample quantitation limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.